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NO. 7.

Maritime Law.

TONNAGE—DEPARTURE FROM CUSTOMARY COURSE—
STRIKING UNKNOWN OBSTRUCTION.

U. S. District Court, Southern District of New York.

A tug, in taking a tow up a narrow channel, ran the tow upon a rock. The tug claimed that the rock was an unknown obstruction, but it was shown that there was a customary and well-known course up the channel, which the tug on this occasion departed from. Held, that the tug was liable for the injury to the tow.

Brown, J.

About noon on the 11th. of April, 1891, the libellant's barge Roseton, loaded with brick, in tow of the steam tug Mascot on a hawser, while going up the artificial canal which runs to the southward and eastward from Newton Creek, was run upon a sunken rock from 55 to 65 feet off from the southerly side of the canal. Subsequently examination showed that this rock was a sharp peak rising up about fifteen inches above the level of a flat rock about 9 feet long by 8 feet wide, which was situated a few inches only below the muddy bottom of the canal. Another rock near by, but probably somewhat further off from the southerly shore, had been well known to navigators and was removed in December previous. The claimant contends that the rock removed was the only rock known, and that the tug is not liable, because the rock on which the Mascot struck was previously wholly unknown.

If I were satisfied that the tug had pursued the usual course in going up the canal, I should hold her not liable. The clear weight of evidence, however, is that all boatmen knew that it was necessary to keep upon the southerly side of the channelway, and that when, as in this case, a schooner was moored at the bulk head of Stag street, the usual course was to go as near the schooner as possible. Had the Mascot pursued this usual course, the evidence leaves no doubt that the Roseton would not have been harmed. Schooners were very frequently moored there, and the Roseton and other barges drawing quite as much water had been frequently taken past such schooners without injury. On this trip, moreover, the tide was at high water so that everything was most favorable. These facts, with the evidence as regards the position of the rock, satisfy me that the Roseton struck the rock because the tug did not pursue the customary course and go near the schooner that was lying there, but went at least 10 feet off from the schooner, instead of only 3 feet as the tug's witnesses contend. The customary practice was binding upon the Mascot. No reason for departing from it is suggested.

In case of accidents from obstruction while departing from the customary course, it certainly is not incumbent upon the libellant to show that the tug or other boatmen had positive knowledge of the precise reasons for the custom, or of the exact location of each particular rock or obstruction, whatever it might be. It is enough in this case that the necessity of going very near to any schooner that might be moored at the bulk head was known and the invariable custom of passing so near, viz; within two or three feet, or even grazing the schooner, as the witnesses testify, is sufficient evidence of the necessity, and of some obstructions that required such navigation. The defendants in effect confirm this by their testimony that they did go within three feet of the schooner, though I find them mistaken on this point. The general knowledge that a certain course was the proper course to take in consequence of some obstructions, and that it was the custom uniformly to adhere to that course, is sufficient to put upon the tug the risk of departing from it without reason. The *Mary N. Hogan*, 34 Fed. Rep. 554. Decree for the libellant with costs.

December 30th. 1891.

SAIL AND STEAM COLLISION.

A steam yacht having run down and sunk a schooner, the sole question as to the liability was whether the schooner changed her course before the collision. Five witnesses, one of whom was disinterested, testified that the schooner did not change her course until the collision had become inevitable, and they were directly contradicted by only one witness. The yacht was liable, since the burden was on her to prove that the schooner changed her course.

The Seneca, District Court of the United States, District of Rhode Island, 47 N. W. Rep. 87.

EXCELSIOR MARINE BENEVOLENT ASSOCIATION, No. 3.

There is an energetic wide-spread feeling of progression existing among the sailing community of the Great Lakes.

A commendable seeking after a more educated and elevated standard than has hitherto obtained, and the most noticeable feature in this connection is witnessed in the regular formation of new lodges of the Excelsior Marine Benevolent Association, whose avowed object is to improve and elevate the standing of its members, to create a fraternal feeling etc. In this connection we note that a special dispensation from the Supreme lodge has just been granted to Marine City for the inauguration of a lodge at that point, on Wednesday, February 10th., the proximity of Port Huron rendered such special action necessary according to the rules of the association.

Capt Sinclair, of Port Huron, was deputed by the grand president to initiate the new lodge with about 34 charter members, and it will be known as Marine City No. 8. Capt. Collier of Cleveland, grand treasurer of the association, also officiated at the inauguration of the new lodge, which starts out under most favorable auspices as Marine City is a residence center for masters.

ANNUAL MEETING OF THE LAKE CARRIERS' ASSOCIATION.

The annual meeting of the Lake Carriers' Association will be held in Buffalo on Thursday, March 3, when officers will be elected for the ensuing year. One of the leading features of President Caldwell's address will be a proposition to have the Association's work in the future done to a large extent by means of standing committees of the board of managers and each committee to have general charge of some special department. Thus there could be a committee on finance, one on rivers and harbors, another on aids to navigation and so on. The committee would have their headquarters at Buffalo, Cleveland, Detroit or Chicago—each where its special work could be transacted most conveniently and efficaciously.

In this way it would be possible for the managers of the Association outside of Buffalo to take active part in its work without leaving their homes. Experience has shown that managers as a rule will not attend board meetings at a distance, at a loss of time and traveling expenses. Mr. Caldwell's idea is good and will tend to consolidate all interests in one large influential and representative body if such a scheme of consolidation can be successfully carried out.

U. S. COMMISSIONER OF NAVIGATION.

According to a Washington special William W. Bates, of Buffalo, N. Y., who has held the position of U. S. Commissioner of Navigation for some time past, has been served with a notice to resign. The name of Edward C. O'Brien has been sent to the Senate by the President for this office. Mr. Bates made the blunder of giving out his annual report for publication before it had been submitted to the Secretary of the Treasury. In the report he went out of the way to discuss the tariff, reciprocity, and other economic questions with an indepen-

dence that was refreshing. Mr. O'Brien, who lives at Pittsburg N. Y., was for eight years connected with the commercial business of the lakes, and is favorably known from Buffalo to Chicago. During the last Congress he held a position on the staff of the clerk of the House of Representatives.

A HOME FOR AGED MARINERS.

At the regular meeting of the Excelsior Marine Benevolent Association No. 3 held in Cleveland on Friday last, Capts. Chester A. Roberts and Andrew Peterson were elected to membership. The following resolutions were indorsed by the lodge and signed by the members:

Whereas there has been a bill introduced in the first session of the fifty-first Congress, by Hon. Tom. L. Johnson, entitled 'a bill to grant an appropriation to build a home for crippled, aged and infirm seamen;'

Whereas we have long seen the necessity for such an institution for men who have worn out their existence in assisting to build up the commerce of the country, therefore be it

Resolved, that the Excelsior Marine Benevolent Association, in convention assembled, do most heartily indorse the general features and passage of this bill. Be it further

Resolved that all lodges of this association be requested to urge upon the respective Congressmen representing their districts the importance of this humane measure and ask their unqualified support in its passage through Congress.

Resolved that the secretary be instructed to forward copies of the foregoing preamble and resolutions to the Hon. Tom L. Johnson and Hon. V. A. Taylor of Ohio and also to the press.

A more commendable measure has never come before the lake marine and as the Bill is inclusive, all those who have sailed in any capacity are eligible as candidates for this asylum, or haven of rest. It is hoped that an appropriation for the erection of this home will be made by the present Congress. Engineers Associations, the Veteran Seaman's Benevolent Association and those residing on shore but who are interested in the lake marine have also endorsed the features of the Bill.

STANDARD TECHNICAL BOOKS.

	Regular Retail Price.	With The Marine Record one Year
Beeson's Inland Marine Guide	\$1.00	\$2.50
Law of Bills of Lading..	5.00	6.50
Patterson's Nautical Dictionary.....	5.00	6.50
Drawing & Rough Sketching for Engineers by James Donaldson.....	2.50	4.00
Scott's Coast Pilot (new edition).....	2 00	3.50
Simple Elements of Navigation.....	2.00	3.50
"Wrinkles" in Practical Navigation.....	6.00	7.50
Practical Seamanship.....	7.50	8.00
Thurston's Manual of the Steam Engine, part 1..	7.50	9.00
Thurston's Manual of the Steam Engine, part 2..	7.50	9 00

SUPERVISING STEAMBOAT INSPECTORS.

The annual meeting of the Board of Supervising Inspectors, held at Washington, has just come to a close. The lake interests were well represented by Supervisor McMasters of Buffalo, and Westcott of Detroit.

The session was a most important one, many changes being advocated to alter more or less the present system of inspection. Lake engineers have scored a success in having the rule amended which debarred them from competing for a license to sail on salt water. Chief engineers of lake steamers will now be eligible as candidates for examination for license to sail on coast or ocean steamers.

CLEVELAND VESSEL OWNERS' ASSOCIATION.

ORGANIZED IN 1880.

(Membership 1890.)

One hundred and thirty-eight steamers, and } Aggregating 245,700 tons.
One hundred and thirty-two sail and barge, }
Maintains shipping offices at Cleveland, Ashtabula Harbor, Fairport and Toledo. Regulates wages, protects crews, and takes cognizance of all matters in the interest of the members and of the lake commerce generally.

OFFICERS.

H. M. HANNA, President
M. A. BRADLEY, Vice President
GEORGE P. MCKAY, Secretary and Treasurer
H. D. GOULDER, Counsel

MANAGERS OR ADVISORY BOARD.

H. M. Hanna, R. G. Winslow, H. P. Lillibridge, P. G. Minch, M. A. Bradley, W. D. Reese, George P. McKay, J. H. Palmer, Thomas Wilson, W. C. Richardson, J. W. Moore, James Corrigan.

EXECUTIVE COMMITTEE.

H. M. Hanna, M. A. Bradley, Thomas Wilson, J. W. Moore, George P. McKay, James Corrigan, B. L. Pennington.

SHIPPING MASTERS.

A. R. Rumsey, 98 dock, Cleveland; Fred Bennet, Assistant, Wm. Rennick, Ashtabula Harbor; Andrew Biemel, Fairport; John O'Connor, 205 Madison Street, Toledo.

THE MARINE RECORD.—OFFICIAL PAPER.

NEWS AROUND THE LAKES.

CLEVELAND, O.

Capt. John Shaw, ships-husband of the Shaw-Eddy fleet visited the city on Tuesday.

Harvey D. Goulder, admiralty lawyer, has been summoned to Sheboygan, Wis. He will probably not return till Saturday.

Capt. Thomas Wilson, manager of the Wilson Transit Line, will leave the city next week for an extended southern vacation, lasting about four weeks.

Work at the yards of the Cleveland Shipbuilding Co. on the two freight monitors is progressing finely. A force of over 600 men is now on the pay roll of the company.

Capt. Joe Denville of the vessel owning and brokerage firm of Benham & Denville, has just returned from a trip to St. Louis looking much improved after his brief vacation.

Capt. McMannus, last season mate of the Wilson Liner Sitka, has been appointed master of the steamer George Spencer, vice-Captain Cowan who will take command of the John Mitchell.

A rumor has been current this week to the effect that Capt. Alex McDougall had resigned from the management of the American Steel Barge Co. It is learned from an authoritative source that there is not a shadow of truth in the report.

A wide interest is manifested in marine circles regarding the court martial now being held in the banquet hall at the Hollenden on Major L. Cooper Overman. The testimony is all taken and arguments for the defense will be heard to-day.

Mr. William M. Fitch, the courteous secretary of the Cleveland Shipbuilding Co., has recovered from his recent attack of the gripe. Supt. Bristow is off duty nursing the malady, which has evidently conquered even his robust constitution, at least for a few days.

Mr. E. D. Chilson of Tecumseh Mich., and others, purchased the steamer Marquette from the Republic Iron Co. The price is said to be \$60,000. The Marquette was built in 1881, and was named the Republic. Her name being changed in 1890. She is rated A 2 in Inland Lloyds, with a valuation of \$80,000.

The Chase Machine Co. are placing a new compound engine in the tug S. S. Stone, they have also shipped to Paducah, Ky., one of their improved vertical duplex pumps and a similar order to Saginaw, Mich., a Chase automatic fog whistle machine has just been shipped to Chicago for a steamer at that port.

Mr. Joseph Glidden who was one of the best known citizens of Cleveland died at Blair, Neb., last Thursday. Coming to this city early in the thirties he maintained a permanent residence on the West Side, and was highly regarded by his wide circle of acquaintances, he lacked but a few days of being eighty-two years old.

At the annual meeting of the Cleveland Board of Underwriters Tuesday afternoon, Capt. A. R. Manning was chosen president for the ensuing year; T. H. Geer, vice-president; A. G. Hopkinson, treasurer; A. I. Truesdell, secretary and inspector; and H. G. Hopkinson, assistant inspector. The committee appointed to consider the advisability of increasing the insurance rate did not report.

The steamer C. H. Green is receiving two 12 by ¾ inch steel arches running from the head of the frames to each end of her and through fastened on every frame, part new 'tween decks laid, engines being thoroughly overhauled and boiler rebuilt. The Green will be as staunch as the day she was launched when repairs are completed. Engineer Warriner, who has been for the past three sea-

sons on the Green, is superintending work on the machinery.

The river and lake as far as the eye can see, is clear of ice, and an early opening of navigation is now spoken of. There is a quietness this week in vessel circles so far as chartering is concerned, and little or nothing has been done. A few cargoes from Ashland have been taken at \$1.25 with the option of bringing the ore down at any time within a period of five months. There is no disposition to make season charters, and if better water is not obtained at the "Soo" the present Lake Superior rates will leave but a small margin to the credit of the vessel.

The regular meeting of the Civil Engineers' Club on Tuesday evening was largely attended. Mr. John L. Culley the paper of the evening on "Mining Engineering," which was highly commended, both during the discussion of the subject and after the close of the meeting. The committee on nominations submitted the following list of names to be balloted for at the next meeting: For president, W. P. Rice; vice president, A. H. Porter and F. A. Coburn; secretary, C. S. Howe and C. M. Barber; treasurer, C. S. Leland and J. L. Culley; librarian, E. P. Roberts and C. H. Benjamin; first director, J. D. Varney and C. H. Strong; second director, Walter Miller and G. A. Hyde.

CHICAGO, ILLS.

Special to The Marine Record.

Many members of Lodge No. 4, of the Excelsior Marine Benevolent Association, were agreeably surprised on coming into the lodge room at their regular meeting, Wednesday afternoon, on seeing a beautiful silver water urn, with two cups of the same material, standing in front of the secretary's desk, and on inquiry were informed that the same had been presented to the Association, with the compliments of the Dunham Towing & Wrecking Co., under the proper heading the lodge moved a vote of thanks to the donors, which was responded to unanimously and ordered spread on the records of the Association, and the members all wish to express their thanks through THE MARINE RECORD to the donors, for their generous and beautiful gift and the same will be duly appreciated by the Association.

Captain James Ferguson, the well known Chicago vessel supply agent went east last week intending to visit all important American and Canadian ports, on behalf of the "Chicago Stock Yards Market Co.," a new firm just starting in business and backed by Michael Cudahy, who have appointed Captain Jimmy their agent. We wish him all the success he deserves, which is unlimited.

Captain John Connelly, has resigned command of the steamer City of Fremont and has been appointed to the command of the new steamer building at Sheboygan, Wis., for Conrad Starke.

The Tioga, disaster of July 1890, is occupying a jury's attention in Judge Bretano's court this week. Hans Christianson's widow is the plaintiff and she is suing the Dunham Towing and Wrecking Co., for \$5,000 damages. Christianson was killed the day after the big explosion, he was one of the Dunham Co.'s employees and was working on the wreck. The company's superintendent went into the hold with a lighted lamp, the collected gas exploded and Christianson was so badly burned that he died soon afterwards.

Captain John Foster, died January 19th, 1892, at Chicago, of influenza in the 63rd year of his age, he was born in Wales and changed his birth name which was David Griffiths, when he left the British army. He has been known as Captain John Foster for the past forty years and was greatly respected and well liked by his numerous friends. His last command was the schooner C. P. Minch which he sailed for several years, prior to which he sailed the City of Green Bay, Homer and several other schooners he also owned an orange grove at Waldo, Florida, at the time of his decease and died a bachelor. His remains were taken to Hamilton, Ont., and buried in the family burying ground January 22nd 1892. Any person having any knowledge of any papers or anything belonging to the estate of the late Captain Foster would much oblige by communicating with David Griffiths, executor of his estate at 859 West Adams street Chicago.

Captain R. Armstrong, of Bay City, Mich., was in this city last week. he is not enjoying good health and thinks it would be best for him to retire from the excursion business here, as his business at Bay City requires all the attention his physical energy will stand. His steamers Sailor Boy and Post Boy which ran in the excursion business between the Lake Front and the World's Fair site last season are laid up here. They are well adapted for the excursion business and are very light on fuel, the Sailor Boy will run 100 miles on one ton of coal and the Post Boy the same distance on 1½ tons of coal. It is reported that they made more money last season than any other two boats running on the same route. They are new and in good condition and would make an excellent investment for the right party.

The steamer Rube Richards, has received new deck beams and decks also new cabins and pilot house which

greatly improves her appearance. Her consort the May Richards is to receive new decks and necessary repairs.

Captain C. W. Elphicke, vessel and insurance agent is in England on business, he went over on the North German Lloyds steamer Havel, which took along the passengers of the wrecked steamer Eider from Southampton to Bremen.

J. A. Myers, of the firm of Elphicke & Co., arrived home last Thursday after a ten days trip to the northern and eastern ports on business.

Captain A. L. Fitch, returned home Tuesday from Cleveland where he had been on business connected with the firm of Elphicke & Co.

The schooner Thos. L. Parker, discharged her cargo of coal at Detroit last week.

Captain Wm. H. A. McGregor, was in this city last Thursday. He went to South Chicago and took charters for the steamers Ionia and Mary Boyce and her consort the M. A. McGregor to carry iron ore next season from Escanaba to South Chicago for the Iroquois Furnace Co.

Captain Wm. Humphrey, is here getting the steamer Neshoto loaded with corn for Buffalo, she having been chartered last week at 3½ cents for storage and freight.

The schooner James G. Blaine, went to the Santa Fe elevator Tuesday to load corn for Port Huron. Her owner to receive 2¼ cents for storage and delivery.

The steamer Kittle M. Forbes, was chartered by Keith & Carr, for wheat to Buffalo p. t.

The steamer Walter Vail, was chartered by P. H. Fleming & Co., for 50,000 bushels of flaxseed for Buffalo at 3¼ for storage and delivery.

Captain H. B. Nelson, of the steamer Geo. T. Hope, left here Saturday night for Cleveland.

Captain C. Nicholson, of the steamer Tom Adams, who has been looking after the repairs on the steamer Farwell and consort Rutter laid up here, left here Friday for Buffalo to look after the Adams.

Captain H. H. Bennett, last year of the steamer S. S. Wilhelm, is here looking after his new command the steamer Folsom.

Captain Dan Stalker, returned here Thursday from Cleveland and Toledo where he had been on business connected with Fries fleet. He went to Manitowoc Monday to look after the repairs doing on the schooner Marion W. Page by Burger and Burger the shipbuilders. Captain Dan will sail the schooner Charles Foster next season.

John Reining, the well known vessel supply man of Buffalo, is spending a few days in this city this week. He is having a steam launch built 40 feet over all, 9 feet 9 inches beam, 4 feet deep by Wm. Hingston & Son, Buffalo, which he will use for conveying supplies on Buffalo river to his numerous customers.

Captain Sam Shaw, sold his schooner Franc Miner, to Captain Halvor Thompson of Manitowoc; consideration \$1500. Captain Thompson has fitted her out and will leave for Manitowoc as soon as the wind blows fair.

The body of a man encased in ice and drifting along the lake, was sighted by George Parker out at the water-works crib on Tuesday. The body was firmly frozen in and seemed to be that of a laboring man about fifty years of age.

Captain Ole Hanson, of Manitowoc, will sail the schooner Hattie Hutt, recently purchased here by him, next season.

Capt. Thomas Roche, of Manitowoc, has purchased an interest in the schooner Naiad, and will sail her next season.

Capt Neil Blaney has returned here from Manitowoc where he had been looking after the extensive repairs on the schooner John Kelderhouse, by Burger & Burger ship-builders, amounting to about \$6,000. Capt. Blaney says Burger & Burger have done a splendid job on the schooner.

ALPENA, MICH.

Special to The Marine Record.

Although Alpena cannot afford a weekly budget of marine news, you must not imagine that we hibernate in this otherwise busy city. Our attention becomes diverted into other channels when our floating homes are securely moored for the winter. In strictly marine work the Gilchrist fleet of vessels are being thoroughly overhauled, the Flint, Russian and Lathrop calked from water line to rail, and all other necessary repairs to keep them in first class order. The scow Aunt Ruth owned by our marine supply man is getting new deck beams, decks, and other new work. The tug Arthur D. has been purchased this week from Comstock and Churchill by Gilchrist and Fletcher, and they will find plenty of work for her to do.

There has been no mention made of our marine club, although we are in first class order; the club was organized January 1st with the following officers: Capt. Thomas Stevens, president; Capt. Thomas Lillias, vice-president; Capt. H. G. Hamilton, secretary; and Frank Hassell, treasurer; the membership is now 21, composed of masters, mates and owners. Considering that annual celebrations were in order, our energetic officers issued invitations for a ball and banquet on February 3rd, and if the spirit of the local press is a true indication, success crowned their efforts, as you may see by the enclosed newspaper clipping: About 100 couples were present arrayed in hearty good nature and fine clothes, dancing was continued till 4.30 a. m. and the festivity was voted one of the most pleasant events of the season with the assurance that the newly organized Marine Club may always figure on a large assembly at their entertainments. The ladies were more than pleased and wanted our officers to have a spring opening celebration also and as we can't have too much of a good thing, there request is being duly considered.

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes and the waters tributary thereto, with the intent to improve the character of the service rendered to the public, to protect the common interests of Lake Carriers and promote their general welfare.

OFFICERS FOR 1891.

S. D. Caldwell, President.....	Buffalo, N. Y.
Frank J. Firth, Vice President.....	Erie, Pa.
Thomas Wilson, Vice President.....	Cleveland, O.
P. P. Miller, Vice President.....	Buffalo, N. Y.
Ira H. Owen, Vice President.....	Chicago, Ills.
Charles H. Keep, Secretary.....	Buffalo, N. Y.
James Carey Evans, Treasurer.....	Chicago, Ills.

BOARD OF MANAGERS.

James Ash.....	Buffalo, N. Y.
W. Bullard, Gen. Mng'r. Union Steamboat Co.....	Buffalo, N. Y.
S. D. Caldwell, Gen. Mng'r. Western Transit Co.....	Buffalo, N. Y.
E. T. Evans, Gen. Mng'r. Lake Superior Transit Co.....	Buffalo, N. Y.
John Gordon, Gen. Mng'r. Northern S. S. Co.....	Buffalo, N. Y.
W. P. Henry, Gen. Mng'r. Lehigh Valley Trans. Co.....	Buffalo, N. Y.
P. P. Miller.....	Buffalo, N. Y.
Frank J. Firth, President Anchor Line.....	Erie, Pa.
M. A. Bradley.....	Cleveland, O.
H. M. Hanna.....	Cleveland, O.
Thomas Wilson, Manager Wilson's Line.....	Cleveland, O.
Harvey H. Brown.....	Cleveland, O.
A. W. Colton.....	Toledo, O.
W. Livingstone, Jr., Mng'r. Michigan Nav. Co.....	Detroit, Mich.
James Davidson.....	Bay City, Mich.
W. M. Egan.....	Chicago, Ills.
R. P. Fitzgerald.....	Milwaukee, Wis.
David Vance.....	Milwaukee, Wis.
Alex. McDougall.....	Duluth, Minn.
F. W. Baldwin.....	Ogdensburg, N. Y.

THE MARINE RECORD.—OFFICIAL PAPER.

BUFFALO, N. Y.

Special to The Marine Record.

The Lake Carriers' Association intend to hold their annual meeting March 3rd.

Capt. Millard is superintending repairs on the steamers Neshoto and R. R. Rhodes.

It is understood that some vessel room from Duluth to Buffalo has been secured at 3½ cents.

E. L. Parrish & Co., are hurrying opening matters with all possible speed, and expect to be ready for business shortly.

The first annual ball and banquet of the E. M. B., A. No. 1, will be given on Friday night. Everything points to a grand success.

The Anchor Line passenger steamers, Japan, India and China, are having their cabins refitted and furnished for the coming season.

Vessel broker John L. Crosthwaite has had his office handsomely papered and painted, and says he will be right in line next season.

Captain Morton, ships-husband of the Wilson Transit Line, visited port for a few days last week to superintend calking and repairs on his Line boats.

The Supervising Inspector of steamboats for the ninth district, Alexander McMaster, has returned from the annual meeting of Inspectors at Washington.

The Anchor Line steamer Codorus, building at the Union Dry Dock Yards, is now showing her lines. Her frames, stem and stern post are in place, and her outside plating is well along.

M. J. Cummings, of Oswego, visited Buffalo this week on vessel business. His steamer S. C. Parnell and the Montague, have not discharged their last freight, and are floating warehouses for flax seed.

Capt. William W. Bates, formerly manager of Inland Lloyd's at this port, has been succeeded as U. S. Commissioner of Navigation by Edward C. O'Brien, of Pittsburg N. Y., who may be a qualified successor, but hitherto he has been an unknown quantity in maritime affairs.

Rumors have been for some time in circulation regarding Hollister & Woodruff, the well-known vessel owners who control the steamer J. C. Pringle, and barges Sunshine, Ben Harrison, and Sweetheart, and are also interested in the Emily P. Weed. It is now known that Mr. Woodruff has been relieved of the management of these vessels, and the Pringle and tow were libeled for supplies purchased during the past year.

Vessel captains are already beginning to come to town, and it is the general opinion that there will be no action taken to delay the opening of navigation this coming season. A prominent vessel owner says the outlook grows less and less promising as the opening approaches. "The fact," he says, "that so much high-class vessel property is for sale, leads me to think that the present owners are afraid the lakes will be overloaded with tonnage, and are figuring on the prosperous close of last year to enable them to get good prices for their boats."

William Murphy, the boat builder, is building a wooden excursion steamer to be known as the Riverside. She will be 140 feet in length, and 30 feet beam. Progress on her has been rather slow on account of the difficulty in obtaining timber. The Riverside is framed in oak, with very heavy planking, and is building something after the lines of the popular Pilgrim, owned by Sloan & Cowles. This firm of enterprising excursion men have begun the

work of establishing a first-class summer resort at Sour Spring Grove, having secured a five years lease of those desirable grounds on Niagara River. Five steamers, including the Niagara River Navigation Co.'s two boats will make regular stops at this resort. Mr. Cowles returns to New York this week to take charge of the Vision. If she is sold, the firm will build another and larger steamer to take her place.

DETROIT, MICH.

Special to The Marine Record.

Mr. John Oades is confined to his house seriously ill.

The capital stock of the newly-formed J. Emory Owen Transportation Co. is \$200,000.

Capt. Sinclair, superintendent of the Dunham Tug Line of Chicago, spent a few days in the city last week.

The propeller Samuel F. Hodge is to be given new decks, new bulwarks, and a thorough overhauling at Oades' yard.

When the new slip is completed at the ship yard at Wyandotte, the company will have a capacity for six keels under construction at the same time.

The propeller Kasota, on which work is being crowded at a lively rate by the Detroit Dry Dock Co., it is anticipated will be out of their dock early in March.

The officers of the steamer Riverside have been re-engaged for next season as follows: Master, Capt. John Desana; clerk, J. H. Pray; engineer, John L. Northrup.

Capt. Charles Davis will sail the Roswell P. Flower this season, and Capt. M. W. Tinney, his last year's command, the Frank L. Vance, owned by the Milwaukee Steamship Co.

The object for which the Deep Waterways Convention was held, is meeting with wide attention at Washington, and the best legislative results is expected therefrom by all the vessel interests.

At the annual meeting of the American Injector Co., held at their offices last week, John Trix was elected president, Ralph Phelps Jr., vice-president, and Hiram M. Keeler, secretary and treasurer.

The steamers of the Crescent Transportation Company, (formerly the Wards line) will this season carry a blue swallow-tail house flag with a white crescent. Smokestacks will be black with white crescent.

At the yards of John Oades the Grosse Pointe light ship, originally built by Oades about the time of the erection of the Stannard lighthouse, when she was used as a transport for stone etc., is being thoroughly rebuilt.

It is said that one of the new and interesting features of Beeson's Inland Marine Guide for 1892, now in press, will be a list of all the people who have met with recognition from the life saving service as "life saving heroes."

The Frontier Iron Works have about completed a large addition to their engine building plant, a prominent feature of which is the new suite of offices which are large, light and elegantly fitted throughout with fire-proof vaults, open fireplaces etc.

The Western Seamen's Friend Society intends establishing a seamen's institute at this port and will work vigorously in the future to make the society more than simply a name. The new chaplain is already making a move in that direction.

Manager D. C. Whitney, of the Whitney Transportation Co., is still east on his wedding trip. Mr. Whitney, though one of the youngest men connected with lake interests, has his hands full in the able management of the fourteen vessels of his fleet.

The new engine and boiler building plant of the Davis Boat and Oar Co., which is located at Wyandotte, Mich., will open for business about the 20th. This company is booking a large number of orders for small pleasure vessels for completion in the early spring.

All in and about the premises of the Detroit Dry Dock Engine Works is a scene of activity preparatory to the reception and erection of their new iron buildings now in transit from the east. Secretary McMillan anticipates that they will be erected and complete prior to March 10th.

The Detroit Dry Dock Co. has elected the following officers for the ensuing year: President, James McMillan; vice-president, Hugh McMillan; consulting and contracting engineer, Frank E. Kirby; general manager and treasurer, Alex. McVittie; secretary, G. N. McMillan; directors the above.

The following agents will represent the Crescent Transportation Company this season: A. P. Wakefield, at Minneapolis and St. Paul; Alfred Robinson, at Duluth; A. J. Otterson, for the Marquette District, headquarters at Marquette; A. E. Thompson at Cleveland; H. L. Chamberlain at Buffalo.

The propeller James Fisk Jr., will be given two steel arches and a thorough overhauling of hull and machinery at the Springwells dry dock this spring. She has now heavy wooden arches which will be taken out of her, and by a removal and alteration of other weights and fittings she will be made a larger carrier.

Capt. Eber Ward, who is one of the oldest and best known vessel owners on the lakes, is well pleased with the outlook for the season of 1892, but is somewhat unde-

cided as to whether he will keep under charter the boats he handled last season, or manage a large established line at Buffalo. There will be money in every well-handled fleet of steamers this coming season, and Capt. Ward is certainly equal to taking every cent out of it.

There is nothing slow about the Citizens' Yachting Association, they are taking hold of this every way commendable and health giving relaxation in the proper style and spirit. The board of directors have been authorized to build a commodious club house. All races will be run on the river, so that citizens may take in the sport. Thirty six yachts are enrolled and the membership reaches 165 active members, with new names being added daily. Under such favorable auspices this city will soon become the center of yachting on the Great Lakes, and it is a healthy sign that the talent of Detroit believe that for pure, manly honest relaxation, there is nothing to compare with a yachting vacation.

DULUTH, MINN.

Special to The Marine Record.

At the shipyard of the American Steel Barge Co., where the whalebacks are built, eight vessels are on the stocks and arrangements are being made to start the big passenger ship. She is to be one of the largest, if not the largest passenger ship afloat and very few people have any idea of what a great vessel this first whaleback passenger "ark" will be. Captain McDougall claims she will make 27 miles an hour and the Captain has so far not been much out of the way in his prediction as to the whales. The vessel will not be owned by the Barge company, but by a new corporation formed from members of the old, and the work of construction will begin soon. The vessel is to be ready for the World's Fair trade and after that will go on the New York and Liverpool run, being cut in two to pass down the Welland and St. Lawrence canals. The Barge Co. are also building the biggest drydock on fresh water.

There is now a little over 8,000,000 bushels of grain at Duluth elevators waiting shipment east at the opening of navigation, by the opening this will probably be increased to 15,000,000 at the least. Receipts of flour are already beginning and there will be over 250,000 barrels waiting by May. There is now on the docks of the various saw mills here 12,000,000 feet of lumber all sold to go east early. By spring, Duluth flour mills will be grinding 7,000 barrels a day, nearly all of which will be for shipment. The westbound merchandise and coal traffic bids fair to be very large, iron ore will move forward from Lake Superior in far greater volume than last year. So it will be seen that the year opens excellently for the vessel men. Both on the Gogebic and Vermillion iron ranges more work is being done than for several years, in fact the Gogebic is actually ahead of its boom years. The Vermillion mines will send 400,000 tons more ore to market than ever before. Then the new Mesaba range, to which two railways are now building from Duluth, will probably be ready to ship 200,000 tons this year. It is probable that during the summer 125 cargoes of lumber will be shipped to Lake Erie from Duluth, as two very large firms have just built mills here and will do business chiefly for the eastern market. It is thought that during the year at least 3,500,000 barrels of flour will be shipped east from here.

W.

LUDINGTON, MICH.

Special to the Marine Record.

During the year 1891, Ludington exported by lake 322,760 tons and imported 36,939 tons.

The Ward firm here are rebuilding the old Boom Co's dredge for dredging around their mill docks.

The U. S. dredge Saginaw, wintering at this port, was broken into last week, and while there was not much damage done it is to be regretted that such mean people are laying around.

George W. Roby has so far recovered from his late illness that he was able to start for his Detroit home last Tuesday. The F. & P. M. R. R. furnished a special car from Ludington to Detroit for his doctor and his attendants. Capt. John Dudson went to Detroit with him.

Capt. O. C. Anderson of Milwaukee, was in this city last week shaking hands with Ludington friends. He says the report that he had sold out his interest in the steam barge Colin Campbell is not correct, and that he was having a new crank shaft put in the Campbell for the opening of navigation. She is wintering in Milwaukee.

Major William Ludlow, Corps of Engineers, U. S. A., has a man taking photographs of the principal harbors on the east shore of Lake Michigan, where there is winter navigation; the harbors which he took views of were Manistee, Ludington, Grand Haven, St. Joseph, and Michigan City; the photographs are for the Engineer Department.

The F. & P. M. R. R. are doing an excellent freight business at this port. Like all western railroads at this time, cars are short and the freight house here is blocked, so that cargo is carried backwards and forwards across the lake for want of room and time to land it. The passenger trade is also brisk and the boats are kept running on regular time. NESTOR.

Correspondence.

We do not hold ourselves responsible in any way for the views or opinions expressed by our correspondents. It is our desire that all sides of any question affecting the interests or welfare of the lake marine should be fairly represented in THE MARINE RECORD.

IN LINE WITH "BEGINNER."

CLEVELAND, O., February 10, 1892.

To the Editor of The Marine Record.

Learning that my former communication was received too late for insertion in your issue of the 4th, I now contribute the Azimuth worked out nearly according to "Beginner's" instructions.

Alt. $\odot$ L. L. $4^{\circ} 50' 00''$ Decl. $7^{\circ} 09' S$
Ref. & Par. $-10 \ 01 \ 90$

Cor. Alt. $4 \ 39 \ 59$ P. D. $97 \ 09$
 $\odot$ Semi-dia. $+16 \ 04$ Alt. $4 \ 56$ Sec. $= 0.001612$
Lat. $47 \ 00$ Sec. $= 0.166352$

True Alt. $4 \ 56 \ 03$
Sum $149 \ 06$
 $\frac{1}{2}$ $74 \ 33$ Co. Sine 9.425530
Rmdr. $22 \ 36$ Co. Sine 9.965301

$19.558795 \div 2 = 9.779397 = \text{Sine } \frac{1}{2} \text{ Az.} = 36^{\circ} 59'$. The true Azimuth is therefore $S. 73^{\circ} 58' W.$, and by applying the known variation the error of the compass is found for that course on which the vessel was heading at the time of taking the bearing. "Beginner" unless he has misquoted himself says to reckon this Az. from the N., Norie says if Lat. is N. reckon from S. and vice versa. STUDENT.

NAUTICAL MILE VS. MINUTE.

MILWAUKEE, WIS., February 8, 1892.

To the Editor of The Marine Record.

In your issue of January 14th, our well known writer on nautical matters, H. C. Pearson, wishes to convince us as to the unfitness of a nautical mile as a standard length measure or unit. But, as Mr. Pearson makes himself liable to a few contradictions, he will probably excuse our determination not to accept his decision in the matter.

After explaining that the length of a nautical mile has been decided to be 6080 feet, he shortly afterwards expresses himself thus: "The nautical mile is not a concrete quantity like other units, but merely a ratio, a certain part of a whole, without regard to size." But how is this Mr. Pearson? We just noticed you to say, that a nautical mile contained, consisted, and expressed the certain quantity or length of 6080 feet, and now you claim those 6080 feet to be "not a concrete quantity." Is not a foot a certain length or quantity? If it is, is not also 6080 feet or a nautical mile something concrete and unchangeable? If a nautical mile was identical to and expressed the same meaning as a minute, why decide it to contain 6080 feet? Why use the expression mile or more commonly "knot," instead of retaining the original word minute? Will Mr. Pearson kindly explain this to us unfortunate enough to stumble in the darkness.

In our opinion a nautical mile is a concrete quantity, a certain length containing 6080 feet and fully adaptable to any practical purpose as a unit or length measure. And a minute is, to use Mr. Pearson's words, but merely a ratio, a certain part of a whole, without regard to size. But, furthermore, a minute is something abstract, the size of which as a length unit can be imagined only on the curve of the angle it represents, if the radius is known. Because, with an unknown length as radius, a minute might as well express a length of one foot as that of 6080 feet.

But for instance, where a radius is known as that of the globe, being 20,925,000 feet, those being the closest round figures, the minute of the curve detained with that length as radius expresses a length of 6087 feet. We would therefore be justified in modifying a certain phrase of Mr. Pearson's article and read it thus: There are just as many minutes in the equator of the school globe, as in the equator of the terrestrial globe, though not quite so many miles, neither nautical or statute miles, as each of them express a certain length measure and as such are unchangeable. We could also express our distance sailed in minutes, by always using the radius of the earth, as thereby we would always be sailing on the curve of the same radius, and a minute in that instance, be equal to a nautical mile. But otherwise, a mile and a minute, will each maintain their distinct meaning. ADOLPH L. FRIETSCH.

"BEGINNER'S" PROBLEM SOLVED.

TORONTO, February 8, 1892.

To The Editor of The Marine Record.

Your correspondence columns have for some time past contained much matter of great interest to the shipmaster who deals in nautical problems, notably, the much vexed subject "Change of variation, and variation proper."

Friend Pearson appears to assume that none of the other writers can discern the difference between the two. I interpret their written opinions different from his. It seems like splitting hairs over a sentence that all understand alike. I have no doubt but each correspondent would, if bound on a voyage from Buffalo to Toledo, or vice versa, take the mean variation between $5^{\circ} W.$ at Buffalo and 0° at Toledo, and use as a correcting course $2\frac{1}{2}^{\circ}$ to the right going either way. The very slight curves made by so doing would not affect the distance to any appreciable degree. When your correspondents speak of change of variation setting them to the north, they touch the very gist of the question, and show the need of knowledge on the subject, as it is the business of the skilled navigator to know what the change will do with his vessel, how to ascertain the method of correcting it, and how to apply the correction.

Your correspondent under the modest signature of "Beginner" puts two questions; the first one is "How to find the deviation of the compass and apply it correctly?"

The reply to that cannot be given in the space your paper

could afford. As recommended in my letter in your columns on August 30th, 1891, let the user provide himself with a good pelorus or azimuth compass, and Burwood's azimuth tables, go to some teacher of nautical astronomy, study quietly for a short time, and he will then be able to ascertain his compass errors accurately and readily by sun or star azimuths, the most accurate method in use among navigators. He will also be able to solve the problem put in "Beginner's" second question, viz. On Lake Superior, October 11, 1891, p. m., altitude of sun's lower limb $4^{\circ} 50'$, latitude $47^{\circ} .01' N.$, sun's declination $7^{\circ} 09' S.$; with those elements he would go to his epitome of navigation and work out the azimuth or sun's true bearing and find it $N. 105^{\circ} 54' W.$, or he would with the same elements work out the apparent time at ship when the problem was given, and find it 4 h. 23 m. 20 sec. p. m.; with that apparent time go to Burwood's tables and take out the azimuth, finding it there $N. 105^{\circ} 54' W.$, precisely the same as when worked by the logarithm method. Having thus obtained the sun's true bearing, apply the variation, in this case say $3^{\circ} E.$, making the sun's correct magnetic bearing $N. 108^{\circ} 54' W.$, the sun's compass bearing cannot be given only by the observer as the compass error is not stated, and here again may I impress the fact that no ordinary placed compass upon an iron vessel can be entirely free from errors after the most skilled adjustment, hence, the importance of having ship swung frequently to ascertain and apply the small errors found thereby to the courses shaped. I assume by the form of the questions put, that "Beginner" is an expert at nautical astronomy, and thus look in the future for his confirmation of these suggestions of mine.

W. H. GOODFELLOW.

MERCATOR VS. CONICAL PROJECTION.

DULUTH, MINN., February 9, 1892.

To the Editor of The Marine Record.

In your issue of the 14th ult. we are gravely informed by "Spectator" that courses as found by our lake charts, always tend to take a vessel to the north of her intended course, and then he enquires if that fact has ever occurred to us, as if we were in some way responsible for it, or that we were guilty of some serious neglect in not treating it in connection with variation, to which he refers.

We would respectfully report to "Spectator" that no such fact has ever occurred to us, nor do we expect that any such fact ever will occur to us, for the reason that there is no such fact to occur to anybody.

But it did occur to us a good many years ago, that there is a property of conic projections by which a vessel may be deviated to the north of her proper course, though not necessarily so, nor so much as "Spectator" would have us believe.

In the case mentioned, Buffalo-Toledo if he will multiply the sine of the mean latitude of the two places, by their difference of longitude, he will have the inclination of the meridian of those two places, thus:

Mean latitude, say 42° , sine 669.Diff. longitude $3\frac{1}{2}^{\circ}$.

Product $= 3\frac{1}{2} \times 669 = 2\frac{1}{2}^{\circ}$, and not 3° as we are told. Then as only half of this inclination can affect the bearing at each end of the route, we have only $1\frac{1}{2}^{\circ}$ as a possible error instead of 3° as certain error.

Again, it is not the distance sailed, but the amount of longitude embraced by a single course, that determines the inclination of the meridians, embracing that course.

Probably the one course covering the greatest amount or difference of longitude, is that of Long Point—Point Pelee, embracing $2\frac{1}{2}^{\circ}$, then, $.669 \times 2\frac{1}{2} = 1.67$, the half of which, or .82 of 1° , or about $\frac{1}{2}$ of $\frac{1}{2}$ of a point, is the possible error of the course, an amount far within the ordinary non-precision of steering ship, and therefore absolutely inappreciable. And, even this infinitesimal tendency to error may be avoided by applying the protractor to the middle, or near the middle meridian when taking up course. To avoid this trouble, which he calls a "great inconvenience in practice," he would throw our lake charts away, and adopt Mercator's chart.

Now it should be known that while for large areas like that of a continent, or the half, or even the whole surface of the earth the Mercator projection is the best; the conic projection is the best for smaller areas, as for a combined area of a few of our States.

In Mercator's projection, distance, that element so important to navigators, does not yield to scale and dividers without numerical work, which would require a kind of training to which our people have never been accustomed. To introduce such an embarrassment so long as our conical projections yield distance at once, and correctly to scale and dividers, and course to absolute accuracy, as we have seen, would seem to be a very idle and foolish thing to do. Yet our learned "Spectator" tells us that "to come up to modern times, lake charts have to be on Mercator's projection," but the reason for such necessity he does not give us—perhaps he had not the time.

In your issue of January 21st., in speaking of my reply to "Surveyor," he undertakes to quote my figures for the value of the minute of a degree in different places, but makes three consecutive mistakes, giving my equatorial minute as my meridional minute. And my mean minute of the meridian, up to 80° of latitude, as my value of one minute of the meridian at 80° of latitude—a very different thing.

Again, in comparing my figures with those of Prof. Young, he gives my equatorial minute as a meridional minute.

My figures for the value of one minute in different places, are rigorously correct, and correctly given on page 6 of THE MARINE RECORD issue of January 14, and when the figures for the same locality, are compared with those of Professor Young, they agree precisely—the seeming discrepancy re-

sulting from the blundering of our learned "Spectator," whose hand we have seen before.

Again he tells us that the absurdity of using the statute mile in nautical computations, appears from the fact that no computations can be made with reference to place, in which statute miles have not to be reduced to nautical miles at the beginning or at the end of the reckoning."

We are sorry to be obliged to dispute the statements of our distinguished "Spectator" so often. But to show that the above statement is absolutely false—for what reason we cannot tell—we give illustration.

All, or nearly all works on navigation and nautical surveying and geodesy, give tables of the value of one degree of longitude, at every degree of latitude—both in statute miles and in nautical miles. And a well known method of reducing departure given in either of these units, is identical for both, thus:

To reduce departure given in statute miles, to difference of longitude.

Rule, divide the departure by the number of statute miles in a degree at the mean latitude, and—

Reduce departure given in nautical miles to difference of longitude.

Rule, divide the departure by the number of nautical miles in a degree, at the mean latitude.

Here we have reduced distance given in statute miles, to one of the co-ordinates of place, without first or last reducing it to nautical miles. What "Spectator" can mean by making such a statement we cannot understand. We cannot see how it can be the result of ignorance, for the problem is within the easy reach of any 14 year old school boy.

Once more—He pooh-poohs the idea that the records of the astronomical work that has been done by the government, and given to us in the United States List of Lights for the lakes, may be utilized as an aid to navigation on the lakes, in place of nautical astronomy, now that we have standard time established. Hear him, "A dozen chronometers showing standard time avail nothing in navigation, if ship time is not known, which must be found by astronomical observation." And in a previous remark he implies that "every pebble stone on the Great Lakes," may be as well referred to as the lights for information. No doubt "Spectator" could do as well referring to the "pebble stones" as to the lighthouses, for we have seen such men.

But our maritime people, not being so profoundly learned that they can deduce the desired aid from the "pebble stones," I offer the following plan of deducing one aid, say that of time at ship—from knowing the place of a light.

A good watch adjusted to standard time, on the lakes is a perfect analogue of the chronometer at sea, each gives the time of a known meridian. The longitude of any light is given in the List of Lights.

The difference of longitude between the standard meridian and that of the light, or ship, which we will call the local meridian, when reduced to time, at 4 minutes per degree, gives us the difference of time between the standard meridian and the local meridian, whence mean time becomes known at ship.

Again, the Nautical Almanac gives us the difference of mean time and apparent time for the date, under the heading "Equation of Time," which applied to mean time at ship, gives us the apparent time at ship.

Thus, without the instruments and field work of nautical astronomy, we have deduced one most important aid to navigation.

The uses and importance of this element are precisely the same on the lakes as at sea; and other elements may be deduced with the same facility. Then why not utilize the information given in the list of lights, thereby saving to our maritime people the expense of nautical instruments, and a long course in nautical astronomy, with its requisite mathematical training, also a long course.

The "place" of ship on the lakes is found by dead reckoning, precisely as at sea, and with the same certainty, for the method in itself, is rigorously correct, and for runs of one or two days, as on the lakes, is all that can be desired. At sea, after a short time, external causes, as unknown or imperfectly known currents, imperfectly measured leeway or drift, conspire to vitiate the results of dead reckoning so as to require correction by astronomical work.

What our friend "Spectator" can mean by discouraging the idea of utilizing work already done, and which can be had for the asking, considering the apparent intelligence he shows in some things, we can hardly impute it to ignorance, then pray tell us what is it?

There are many other beauties in the two communications above referred to, which to develop according to their merits, would require another chapter, such as is here given, but this must suffice.

There is nothing that gives me so much pleasure as to discuss such questions as I can discuss, with those who are looking for light. But when I am brought into contact with arrogant dogmatism, I confess that my religious training has not been so perfect as to enable me at all times to hide my "contempt of court," with as much grace as could be desired.

H. C. PEARSONS.

WORLD'S FAIR.

General Manager David Carter of the D. & C. Navigation Co., in reply to a letter from the traffic manager of the World's Columbian Exposition, has just sent the following letter:

DETROIT, MICH., February 4, 1892.

E. E. JAYCOX, Traffic M'gr.

World's Columbian Exposition, Chicago, Ills.

DEAR SIR:—Yours of the 2nd addressed to James McMillan, president of this company, who is at present in the United States Senate at Washington, D. C., has been referred to me. In reply would say that it will be impossible for this company to send any of its steamers to Chicago in 1893, for the transportation of passengers to and from the Exposition. Our steamers are all engaged on important routes, which we must take care of, regardless of other tempting offers, and this I believe, that we have steamers that could do the whole water business.

Very respectfully yours,
D. CARTER, General M'gr.

A RECENT English invention is a screw propeller, in which the blades can be adjusted for manœuvring or can be feathered for running undersail.

LINE MANAGERS, OFFICERS AND LIST OF APPOINTMENTS FOR 1892.

The following list of appointments to date of masters and engineers are official, being furnished to THE MARINE RECORD by the managers of the Lines:

S. F. Leopold, Manager Lake Michigan and Lake Superior Transportation Co., Chicago, Ill., has made the following appointments of captains and chief engineers for the season of 1892: Steamers, Peerless—Capt. H. C. Page, Engineer Wm. Conly; City of Duluth—Capt. Donald McLean, Engineer Henry Chalk; City of Traverse—Capt. J. M. Twitchell, Engineer S. W. Armstrong; Jay Gould—Capt. Joseph White, Engineer A. P. Williams; Jas. L. Hurd—Capt. L. Reynolds, Engineer J. R. Bennett.

Detroit & Cleveland Steam Navigation Co., President, James McMillan; vice-president and treasurer, Hugh McMillan; secretary and general manager, David Carter. These, with W. C. McMillan and George Hendrie, are the directors: The officers of the fleet are as follows: Steamers, City of Cleveland—Capt. Dugald McLachlan, Engineer John M. Sargeant; City of Detroit—Capt. Alexander McKay, Engineer W. S. Huff; City of Alpena—Capt. Mathew Lightbody, Engineer John Jones; City of Mackinac—Capt. Henry J. Slyfield, Engineer Wm. McDonald; City of Detroit No. 1—Capt. D. McLachlan, Engineer James Middleton.

Parker Transportation Co., President and manager, A. A. Parker; vice-president, A. R. Munger; secretary, B. W. Parker; treasurer, Hugh W. Dyar. These, with F. B. Gaylord, are the board of directors. Through the courtesy of A. A. Parker the following appointments are given: Steamers, A. A. Parker—Capt. J. T. Hutton, Engineer Frank Tirpert; John Oades—Capt. T. Lemay, Engineer James Falconer; Minneapolis—Capt. H. W. Bogert, Engineer J. Dives; B. W. Blanchard—Capt. Geo. Stoddard, Engineer Richard Mahoney. Schooners, B. W. Parker—Capt. Edward Lohr; San Diego—Capt. Henry Morey; Redwing—Capt. Chas. Woods; Saveland—Capt. Edward Hewett. Tugs, Favorite—Capt. Martin Swain, Engineer Geo. Smith; Saginaw—Capt. Thomas Hayes.

Whitney Transportation Co., President and treasurer, David Whitney, Jr.; vice-president, John Dalzelle; secretary and manager D. C. Whitney. The following officers are appointed to the fleet for 1892: Steamers, Tampa—Capt. W. H. Hutcheson, Engineer D. A. Black, Second Engineer Williams; Mecosta—Capt. John Leonard, Engineer Geo. Francombe; Lansing—Capt. C. J. Ennis, Engineer Gus Gey; D. C. Whitney—Capt. G. Trotter, Engineer Williams; Nipigon—Capt. A. C. May, Engineer Wm. McKittrick; S. C. Baldwin—Capt. John Byers, Engineer T. Francombe. Barges, Ashland—Capt. D. Critchet; Wayne—Capt. D. Tiffant; Melbourne, Capt. G. Cooper; Grace Whitney—Capt. E. Pillon.

Northwestern Transportation Co., President, treasurer and general manager, E. M. Peck; vice-president, Harvey H. Brown; secretary, L. C. Waldo. The above named, with James Findlater and E. T. Peck, constitute the board of directors. The following captains and chief engineers have been appointed for the season of 1892: Steamers, S. R. Kirby—Capt. James Fraser, Engineer J. H. Hand; E. M. Peck—Capt. E. C. Gatfield, Engineer Wm. Watts; Fayette Brown—Capt. D. Girardin, Engineer Nick Anderson; Forest City—Capt. Joseph Sanders, Engineer John Hartman; R. J. Hackett—Capt. Henry Sanders, Engineer J. H. Foster. Schooners, Harvey H. Brown—Capt. E. M. Fuller; Wm. McGregor—J. B. Hochrath.

Inter Ocean Transportation Co., Capt. J. C. Ricketson general manager of the Line, has made the following appointments, with the clause that the Minnesota and Metacomet being open to change hands the officers of those steamers are liable to be replaced, otherwise the fleet is manned exactly as last year, not a single change being made, a fact which speaks highly for both management and officers: Michael Conley, chief engineer of the fleet. Steamers, Maryland—Capt. Joseph E. Yax, Engineer S. C. Davis; Manchester—Capt. Timothy Kelley, Engineer James Grant; Manhattan—Capt. H. F. Loftus, Engineer Wm. Turnbull; Massachusetts—Capt. P. A. Anderson, Engineer Philip VanRensselaer; Merrimac—Capt. Wm. J. Pringle, Engineer W. R. Patterson; Minnesota—Capt. Daniel Jones, Engineer W. H. Pinkham. Barge Metacomet—Capt. W. J. Shields.

Ward's Detroit & Lake Superior Line, President, W. H. Stevens; vice-president, John M. Nicol; secretary, John V. Moran; treasurer, Harry S. Hodges; manager, Cash P. Taylor; general freight agent, M. Borgman; commodore, Albert Stewart. Directors, W. H. Stevens, John V. Moran, L. L. Barbour, H. S. Hodge, W. H. Irvine, David Wallace. The name of the company is now changed to Crescent Transportation Co., to avoid confusion of names with Eber Ward's Lake Superior Line. The masters and chief engineers of the Line will be as follows this season: John M. Nicol—Capt. Albert Stewart, Engineer Joseph Hayes, John V. Moran—Capt. Robert Rhynes, Engineer G. E. Lynn; W. H. Stevens—Capt. John Tyne, Engineer G. E. Tretheway; Eber Ward—Capt. W. McLean, Engineer James Purvis; James Fisk, Jr.—Capt. Louis Elliott, Engineer Elmer Tucker; Samuel F. Hodge—Capt. Murray McIntosh (last year mate of the Moran,) engineer W. T. Walker.

Roby Transportation Co., E. M. Peck, president; L. C.

Waldo, secretary: Steamer Geo. W. Roby—Capt. John Duddleson, Engineer Dan'l Harkins.

F. W. Gilchrist, Alpena, Mich., has made the following appointments for 1892, Steamers, Viking—Capt. Harry Richardson, Engineer Miller; S. C. Hall—Capt. John Doner, Engineer P. Mahar; Garden City—Capt. H. E. Foster, T. Kneal. Tugs, Frank W.—Capt. T. Lillis, Engineer D. Thompson; Ralph—Capt. P. Lawson, Engineer P. Nold; Arthur D.—Capt. G. Brooks. Yacht, Hinda—Capt. F. W. Fletcher, Engineer B. Pearsons. Barges, Michigan—Capt. John Rhadigon; Sam Flint—Capt. H. Hamilton; Nellie Mason—C. Hanon; Russian—Capt. J. Hamilton; Light Guard—Capt. T. Stevens; S. H. Lathrop—Jas. Glenn.

A FREE CANAL WANTED,

The following resolutions have been formulated by a committee of the Business Men's Association and unanimously adopted at a special session of that body held in the city of Sturgeon Bay last Thursday:

To the Honorable the Senate and House of Representatives of the United States, in Congress assembled.

Your Memorialists, The Business Men's Association of Sturgeon Bay, respectfully represent. That the commercial and marine interests tributary to the Great Lakes require that the Sturgeon Bay and Lake Michigan Ship Canal should be purchased from its present owners on just and equitable terms, by the United States, and that the navigation thereof should henceforth and forever be and remain free from all special tax or tolls levied by individuals or private corporations.

We submit the following reasons why the United States should purchase, and make free for the purpose of navigation this important waterway.

1. On account of the saving of one hundred miles in the sailing distance for all classes of vessels going to or from port in Green Bay, and to or from Chicago, Racine, Milwaukee, Sheboygan, Manitowoc and Kewaunee on the west shore, and from Michigan City, Grand Haven, Muskegon and Marquette on the east shore of Lake Michigan and also avoiding dangers of entering Green Bay by its natural and hazardous passage commonly known as Death's Door.

2. The constructing of this canal by the General Government would have been a very proper and wise thing to have done, as has been stated in the reports of several officers of the U. S. Engineer Corps in their reports to the War Department.

3. The value of the commerce annually passing through this canal amounting to many millions of dollars, as well as one million tons of registered shipping in the aggregate, renders this waterway of vastly too great commercial importance to be owned and controlled by a private corporation, who must necessarily levy a toll on each craft passing through in order to keep up and maintain said canal.

4. With this waterway free from tax, or toll, levied on the tonnage passing through it, we are justified in believing that nearly all the iron ore shipped from Escanaba and destined for the ports of Chicago, Milwaukee and Michigan City would go by way of this canal, thereby avoiding one of the most dangerous routes that is known to mariners on our lakes. Assuming that this would be the condition of things, the passage of tonnage through this canal would be more than five million tons and the value of its commerce to one hundred millions or more dollars and it would be counted as among the great waterways of our country.

5. We submit the following as illustrative of the conditions that prevail as regards all classes of vessels passing through the Sturgeon Bay and Lake Michigan Ship Canal with the past and present rate of toll fixed and maintained by the corporation that owns it. A steamer measuring five hundred tons, engaged in carrying persons and property through the canal daily, is required to pay a toll of fifteen dollars for each passage, or four hundred and fifty dollars for each thirty days, and for eight months (the sailing season) it must pay three thousand and six hundred dollars. The right to levy this toll remains undisputed, but we submit that there is no legitimate business that can pay a special tax of such magnitude and stand as a successful competitor in the commercial enterprises of the nineteenth century.

6. The United States has expended more than two hundred thousand dollars in the construction of a harbor of refuge, lighthouse, fog signal, life saving station, etc., at the Lake Michigan end of the canal, as aids to navigation. The objects sought to be accomplished by these improvements have been in a great measure defeated for the reason that the area enclosed by the piers is not sufficient to afford protection to the smallest class of vessels. All craft seeking shelter from storms must pass through the outer piers and enter the canal before their safety is assured; they are then subject to such rules and requirements as the owners may see fit to impose. The harbor light maintained by the United States is of no great value except to vessels desiring to enter the canal. We submit that the best and only available and only feasible point at which to establish a harbor of refuge is in the head of Sturgeon Bay, where nature has already prepared one of the most complete harbors in the world. In this, our judgment, as to the proper place for the establishment of a harbor of refuge, we have the concurrence of several eminent U. S. Engineers. Hence the further and important reason for the United States owning and controlling the canal.

7. The cost of the canal to its present owners appears from the official records to have been three hundred fifty-four thousand and seventy-three dollars and thirty-eight cents, but it seems that from a settlement had by and between the Wisconsin Legislature during its session of 1891, and the Canal Company, that the said company can have no equitable claim on said canal exceeding eighty thousand dollars, and for that amount, or a less sum, we believe the United States can purchase said canal and make it a free waterway to the commerce of the country, and your memorialists believe that in no other way could a like sum of money be expended that would bring with it so great and permanent a benefit to the marine and commercial interests of our country as would this sum thus paid for this property.

Resolved, That one copy be sent to each of the following named Representatives in Congress, by the Association: Senator Philatus Sawyer, Senator William F. Vilas, Representative Thomas Lynch, and Representative S. M. Stephenson, of Michigan. Also that the various newspapers published in the country tributary to the Great Lakes be supplied with a copy for the purpose of publication. Respectfully submitted.

ENLISTMENT OF BOYS IN THE U. S. NAVAL SERVICE.

Boys between the ages of fourteen and seventeen years may, with the consent of their parents or guardians, be enlisted to serve in the navy until they shall arrive at the age of twenty-one years. No minor under the age of fourteen years, no insane or intoxicated person, and no deserter from the naval or military service of the United States can be enlisted. Boys enlisted for the naval service must be of robust frame, intelli-

gent, of perfectly sound and healthy constitution, free from any physical defects or malformation, and not subject to fits.

Their height and measure must be as follows:

Age.	Height not less than—	Weight not less than—	Chest measurement, breathing naturally, not less than—
Fourteen years	4 ft. 9 in.	70 pounds.	26 inches.
Fifteen years..	4 " 11 "	80 "	27 "
Sixteen years..	5 " 1 "	90 "	28 "

They must be able to read and write.

In special cases, where the boy shows a general intelligence and is otherwise qualified, he may be enlisted, notwithstanding his reading and writing are imperfect. Each boy presenting himself for enlistment must be accompanied by his father, or by his mother in case the father be deceased, or by his legally appointed guardian in case he has neither father nor mother living, and the parent or guardian presenting the boy must sign the prescribed "consent, declaration, and oath" which forms part of the Shipping Articles. In cases where parents or guardians may, by reason of distance, infirmity, or other causes, be unable to appear at the place of enlistment, they will, on written application to the commanding officer of either of the ships upon which enlistments are made, be furnished with the printed form of "consent, declaration, and oath," in duplicate, by executing which the enlistments will be perfected, should the boys be accepted by the Board of Examining Officers. No allowance will be made for traveling expenses, whether accepted or not. The Board of Examining Officers will consist of the Commanding Officer, a Line Officer and the Senior Medical Officer of the vessel. All boys enlisting as apprentices must voluntarily sign an agreement to serve in the navy until twenty-one years of age, which agreement must, before being signed, be carefully read and explained to each boy by the Recruiting Officer. Boys who have been convicted of crime cannot be enlisted. All boys enlisted will be rated 3rd class apprentices, and receive \$9 per month. Deserving boys will be rated 2nd class apprentices and receive \$10 per month after having served six months on a cruising ship, and 1st class apprentices, at \$11 per month, after having served one year in said ships. Properly qualified apprentices will be rated seamen apprentices, 2nd class, and receive \$19 per month, after having served one year in cruising vessels of war; and seamen apprentices, 1st class, at \$24 per month, after two years' service in said cruisers. All apprentices receive one ration per day. When first received on board of a training ship apprentices will be furnished, free of cost, with an outfit of clothing not exceeding in value the sum of forty-five dollars. This outfit of clothing is furnished upon the supposition that the apprentice will serve during his minority, and therefore, if during his minority he is discharged at his own request, or at the request of his parents or friends, the value of this outfit of clothing must be refunded.

Boys enlisted to serve until twenty-one years of age will not be permitted to allot any part of their pay to parents or guardians until they shall have been transferred to general cruising ships. Apprentices will be transferred to fill vacancies in sea-going vessels as they become proficient. Upon the expiration of the enlistment of an apprentice, he will, if recommended, receive an honorable discharge, and upon re-enlistment within three months from the date of honorable discharge he will receive three month's extra pay of his rating when discharged, a continuous-service certificate, and an addition of one dollar per month to his pay. Apprentices will be under the immediate supervision of the Bureau of Navigation, Navy Department, and applicants for enlistment may be made to the chief of that bureau, or to the Commanding Officer of either of the following named ships, viz.: U. S. S. Wabash, Navy Yard, Boston, Mass.; U. S. S. St. Louis, Navy Yard, League Island, Philadelphia, Pa.; U. S. S. Dale, Navy Yard, Washington, D. C.; U. S. S. Michigan, Erie, Pa., or during her cruise upon the lakes, and such other vessels as may from time to time be designated for this service. Apprentices will be sent to the Training Station at Coaster's Harbor Island as soon after enlistment as practicable.

MORE NEW TONNAGE.

A contract has been signed with F. W. Wheeler & Co., the West Bay City shipbuilders, to commence work on a fine new freight propeller for Capt. A. E. Stewart, C. F. Bielman, George Peck and others, all of Detroit. In dimensions and general appearance the new vessel will be a duplicate of the W. F. Sauber, built by Wheeler & Co. last season, and who has already proved herself a successful carrier in every respect. The new boat will be of wood, 291 feet keel, 41 feet beam and 23 feet deep. She will be propelled by triple expansion engines, cylinders, 20 by 32 by 54 inches and 42 stroke of piston. She will be fitted out with steam steering engines, steam windlass and hoisting engines and all the modern appliances that complete the equipment of a first-class boat. Her cabin outfit and furnishing will be especially fine. She will carry three pole masts. The new vessel will cost about \$130,000, and will be finished by July 15th. She will be placed in the ore and grain trade. It is estimated the new boat will carry 2,000 gross tons on a draft of 14 feet 6 inches of water, so that her lines will be as full as her sister boats.

According to advices printed in THE MARINE RECORD some weeks ago, it is now learned that the Michigan Central Railroad, owners of the transfer steamer St. Ignace, are having plans made by the Detroit Dry Dock Co. for a new transfer car ferry to alternate with the famous ice crusher between St. Ignace and Mackinaw. She will be considerably larger than the St. Ignace, but will be on much the same plan. She will have similar powerful engines turning heavy screw propeller wheels at both ends of the boat, and, it is expected, will be even more successful at crushing through the ice than her powerful predecessor. The new boat will cost about \$350,000, and will be built of wood, properly sheathed. The contract has not yet been signed, but the matter will probably be disposed of in a short time. Another boat is badly needed at that point, for, should the St. Ignace become disabled, the railroad companies would have to depend solely upon the Algoma, a small steamer that has long since outlived her usefulness either in carrying capacity or power.

The Marine Record.

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Subscribers and others are respectfully invited to use the columns of THE MARINE RECORD for the discussion of pertinent topics and all matters relating to the welfare of the Lake Marine. N. B.—We do not hold ourselves responsible in any way for the views expressed by our correspondents. Contributions must in every case be accompanied by the full name and address of the writer, and be at this office not later than Wednesday morning.

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ALL MAIL MATTER

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"SMITH & SWAINSON,
148 SUPERIOR ST.,
CLEVELAND, OHIO."

CLEVELAND, O., FEBRUARY 11, 1892.

FRANCE, Italy and Sweden will act as arbitrators in the Behring Sea dispute. The two latter powers are likely to favor the British rendering of the case, at least, the United States is not in Italy's best graces at this time on account of the New Orleans fiasco, and Sweden, although having a large representation of her populace in this country, has a closer national leaning to Britain.

It is a somewhat noticeable feature that there has been fewer transfers in the ownership of floating property this winter than for the past several seasons. This, we believe is an indication that a fair earning season is confidentially looked forward to, even by those who only balanced their ledger accounts last year by writing off a cypher. The shipyards and engine shops are full of work, besides an active inquiry for special tonnage, but there has been little A1 tonnage changed hands, or placed on the market since the close of navigation.

THERE is a good opening for an inventive American mechanic to construct a signal gong or telegraph for communicating between the engine room and deck, also for transmitting steering and lookout signals, alarm gongs etc. It appears to us that an English firm maintains a close monopoly on these specialties just now, and the field is somewhat noticeable on account of no American instruments or system being on the market. This is not as it should be, nor do we believe but that more perfect, durable and efficient mechanism might be devised by an American who would turn his attention to this special feature of a steamer's outfit, and it is foregone conclusion that a large patronage awaits the inventor thereof. Pat.

ent windlasses and steam capstans, the most perfect in the world, steam-steering engines also electric light installations and automatic fog whistles, have each been perfected by American skill besides scores of other thoroughly efficient mechanical inventions; and why not a duplex gong or mechanical telegraph with electric power if considered advisable, including all other necessary features which such an instrument is capable of? An American patent or invention usually covers the field better than any foreign device, and we trust that we may soon hail an American gong for vessel use instead of meeting the imported article so often as is now done.

THE shipbuilders of the Great Lakes held a Convention last Tuesday in Cleveland, the outcome of which will be a national decision regarding the right of building United States vessels on the lakes. Congress passed an Act in 1864 abrogating the clause in the 1817 treaty with the English, whereby both powers were prohibited from placing armed vessels on the lakes over and above the quota of tonnage then agreed upon. This treaty clause had become so warped that not even a shell or hull might be constructed if destined for naval purposes when completed, and a lake shipbuilder although the lowest competitor for a Government contract for the building of a practice vessel was inconsistently told that an abrogated treaty clause prohibited the Department from considering his bid, although admitting that he had distanced his competitors in bidding for the work. It is high time that any law which prevents a citizen from working for his Government, and its best interests, should be rendered null and void, and such we trust will be the final action resolved upon in relation to building vessels for any honorable purpose on the Great Lakes.

THE late Commissioner of Navigation having vacated his office, it would be in order to ask what qualifications for this special office his successor has. The time is now past when an inexperienced or untrained person can efficiently assume the duties of a U. S. Commissioner of Navigation, and at this time in the history of the mercantile marine a special adaptation for the work is a main essential. If such an individual is appointed to the incumbency, steady progress and smooth sailing will mark the order of the office, if otherwise, the position will be controlled by subordinates, and decisions which ought to be final, will but court an appeal. There is no denying the fact that Capt. William W. Bates worked in and out of season for the best interests of the U. S. mercantile marine, according to his own light, and it is perhaps because he zealously worked a little out of season, that the change has been brought about; in any case, his enemies can but admit that he is and has been earnest and diligent in his desire to bring about a rehabilitation of the mercantile marine of the country, and if his efforts have not been duly appreciated in high quarters, he has the consolation of knowing that he is not the first individual to suffer official decapitation through, perhaps, a mistaken sentiment of the value of a life's study. Capt. Bates is still to the fore as the best authority on the mercantile marine of the U. S., and arguments bristling with pertinent truths are more than likely to see the light of day through the agency of the press.

ON LIGHTS AND RULES.

The Kingston correspondent of THE MARINE RECORD evidently appreciates the anomaly now existing in the revised statutes of the rules and regulations prescribed by the United States Board of Supervising Inspectors of steam vessels, and has succeeded in showing the prevailing misapplication and contradictions contained in only one Rule, probably not deeming it worthy of the consideration of a thoroughly efficient person to further analyze the code of rules, which we have frequently held forth as being inadequate and misleading.

In reviewing an editorial of January 28th on this subject it, is learned that the forward light is frequently carried on the stem head a-la-mode of half a century ago, when the only light carried was a horn lantern at the bow-sprit end, hence, if the inspectors on the upper lakes have been remiss in not enforcing the after range light to be carried fifteen feet higher than the forward light, the inspectors on Lake Ontario have been doubly remiss in permitting the mast-head light to be carried on the line of hull, or as stated by our Kingston correspondent, sometimes fifteen feet lower than the sidelights and range light, this can be readily understood on side-wheel steamers where the sidelights are usually exhibited from the paddle boxes.

Rule One, states that every steam vessel whether under sail or not is to be considered a steam vessel.

Rule Three, says all ocean-going steamers and steamers carrying sail shall carry a bright white light at the foremast head. Not on the stem, or half way down the mast, but at the mast-head.

Rule Seven, commands all coasting steam vessels and steam vessels other than ferry-boats navigating the bays, lakes, rivers, etc., to carry in addition to the light at the

foremast head—and there is no getting clear of the foremast head part of it) an after light fifteen feet above the light at the foremast head to show all around the horizon. We read Rule Seven with the light given us by Rule One and consequently all lake steamers are forced to carry an after light at the given elevation, that is if Rule Seven means anything, but it does not, will not be enforced, and no good reason can be offered for its continuance in the rules and regulations, though the discussion proves that a mast-head light brought down to the stem is a wide and more dangerous dereliction of the Rules than the absence of the after range light showing all around the horizon, to the utter confusion of men who know how to locate a light and what it is doing.

Given a colored light in any position and the direction in which it is proceeding may be clearly defined. It is also known that a mast-head light may only be seen over an arc of twenty points of the compass, but, this all-round-the-horizon range guide is misleading in the extreme and in nine cases out of ten would be mistaken for a mast-head light, showing from right ahead to two points abaft the beam, according to the rule.

The Board of Supervising Inspectors of steam vessels having just been in session at Washington no better time could be found to call their attention to the much printed diagrams showing the "Rules of the Road," first presuming that these diagrams are either meant to instruct, or point the way out of a difficulty or imminent danger. If these premises are admitted, then, second and third situations in the diagrams mean simply nothing, for in each case, if the vessels stand on, that is, hold their course, there is no danger of collision, no point of instruction and the diagrams are so much paper wasted.

In the fourth and fifth situations the instructions and diagrams are distinctly misleading, as the steamer which has another close aboard on her own starboard side will not port to avoid collision, imminent danger is involved in the diagrams, and instant action is required, or as in the former cases they lose their significance, but, we strongly maintain that porting would not solve the problem successfully, and it is well said, "that the situation requires great caution." Under the use of port helm authorized by the rules and diagrams it would seem to us that caution would be unnecessary, as the impact, or the chase of one after the other under port helm would make an exciting whirl with caution thrown to the winds.

The sixth situation with the mast-head and port light of B close aboard and directly across the bows of A. It would here seem, that instead of porting with confidence, it would be more advisable to follow the course laid down by Article 18 in the Rules approved for high seas and the coast, March 3rd, 1885, viz: "Every steamship when approaching another ship so as to involve a risk of collision shall slacken her speed and if necessary stop and reverse." The seventh diagram is a repetition of the sixth with the starboard side of B to A and A is told to starboard with confidence, this is not in accordance with Rules 4 and 5, for there the steamer to act, is the one which has the other on her own starboard side, in this case the opposite ruling holds and Article 18 is also annulled. There is a Government revision of these lights and rules necessary and the most opportune time is the present.

Owners and masters of vessels on the Great Lakes recognizing that the present steering and sailing rules are inadequate, have endorsed certain supplementary rules, which, while they do not conflict in any way with the rules as laid down by the Board of Supervising Inspectors, are framed to meet the exigencies of lake navigation, and if these semi-official rules were endorsed by the Supervising Inspectors a close adherence to them would necessarily ensue, otherwise, they will become a law by custom.

LET LAKE SHIPBUILDERS COMPETE.

In speaking and writing about the abrogation of the naval clause in the treaty of 1817 relating to the Great Lakes, it is and has been the general custom to imagine that the lake interests desire to flood these waters with naval vessels. Nothing is wider from the mark than such a view of the question, for, besides the revenue cutters (one of which ought to the ample for each lake) there is not the remotest probability of there being any vessels placed, or required to be placed in commission on these waters.

The abrogation of the special clause contained in the treaty is simply to permit the construction of such a class of tonnage whenever it may be considered desirable so to do, but, mainly, to annul the prohibiting clause under which lake shipbuilders are forbidden to join two steel plates together if their ulterior disposition is for naval purposes. Let it be clearly understood that lake shipbuilders are positively handicapped and distinctly prohibited from following out their business on naval lines and the injustice of the treaty clause becomes apparent.

The special industry of shipbuilding prospers under a healthy competition, and it is manifestly unfair to bar

out the lakes from this feature of national progress, when there is at least a portion of naval tonnage which could be constructed on the lakes with advantage to the country at large and the industries in particular entering into the construction and equipment of a modern built wood, composite, iron or steel vessel, each of which may be and has been put together on the lakes with as satisfactory results of construction as in any portion of the world.

It is therefore necessary to rid the mind of this "flooding the lakes with war ships" and consider the question in the broad sense of equality, equity and economy of construction in permitting the unsurpassed facilities now found in the shipbuilding yards of the Great Lakes to be used in competition with the established plants on the seaboard.

CLASSIFICATION OF STEAMERS BY THE CLEVELAND VESSEL OWNERS' ASSOCIATION.

At a meeting of the executive committee and advisory board of the Cleveland Vessel Owners' Association held on Tuesday. The committee on classification of steamers composed of Captains James Corrigan, Thomas Wilson, Geo. P. McKay, Mr. M. A. Bradley, Mr. H. G. Dalton and Mr. Wm. G. Mather reported a unanimous measure to rate steamers in the Association as follows, and to grade the wages of engineers in the different classes between the limits specified, depending upon the size of the steamers in the class and the character of the business in which they were engaged:

1. Metal steamers having water bottoms and triple expansion engines: For chief engineers \$115 to \$125 per month, second engineers \$75 to \$80 per month.

2. Metal steamers not included in class 1 and wooden vessels with the triple expansion and compound engines, except the smaller boats which may be put in class 3: For chief engineers \$100 to \$115 per month, second engineers \$70 to \$75 per month.

Smaller boats, with high pressure or low pressure engines, or with compound engines, covering all boats not included in the two former classes: For chief engineers \$80 to \$100 per month, second engineers \$60 to \$70 per month.

The above will be the rate which all steamers in the Association will be called upon to pay during the season of 1892.

A CONVENTION OF LAKE SHIPBUILDERS.

All of the prominent shipbuilders of the Great Lakes met in Convention in Cleveland on Monday, and after a wide discussion on the prohibitory clause of the treaty which has been held to prevent shipbuilders on the lakes from competing with their brethren on the coast for government contracts, it was unanimously resolved that steps be taken to determine their just rights in this matter. The granting of foreign built tonnage an American registry and other important features affecting the interests of shipbuilders were discussed at some length. Mr. Alexander McVittie of the Detroit Dry Dock Co, was empowered to draft suitable resolutions embodying the views of the Convention. Buffalo, Cleveland, Toledo, Detroit, Bay City and Chicago were well represented and the best possible results may be expected from the coming together of so practical and energetic a body of men.

OFFICERS APPOINTED.

The following appointments have been made for the Lake Michigan and Lake Superior Co.'s fleet of steamers: City of Duluth—Donald McLean, master; Henry Chalk, chief engineer. Peerless—H. C. Page, master; William Canley, chief engineer. City of Traverse—J. M. Twitchell, master; S. W. Armstrong, chief engineer. Jay Gould—Joseph White, master; A. P. Williams, chief engineer. Jas. L. Hurd—L. Reynolds, master; J. R. Bennett, chief engineer.

Bay City and Cleveland Transportation Co., president, Mrs. M. J. Jenness, Cleveland; manager, James A. Francomb, Detroit; treasurer, William R. Stafford, Port Hope, Mich.; secretary, Thomas K. Christie, Detroit. The officers appointed for 1892, for the steamer W. R. Stafford,—Capt. William Roach, Engineer Moses Peltier; schooner John A. Francomb,—Capt. Arthur Hazen.

The Michigan Navigation Co. appointments for 1892 are: steamer Livingstone,—Capt. William H. Wilson, Engineer Alex. Morison; T. W. Palmer,—Capt. George F. Stilphen, Engineer Robert B. Hodge.

EITHER NORTH OR SOUTH.

EAST TOLEDO, O., February 10, 1892.

To the Editor of The Marine Record.

Your valuable issue of February 4th is at hand. I find an omission there, which, although very insignificant in print, changes the solution of the example and might mislead people that wish to learn something, it is on account of those that I wish to rectify this, viz:

Foregoing azimuth, which was figured out from north as wished for by "Beginner", could have been figured from south just as easy, should read N. 105°56' West Variation at 87° west longitude = 2°00' East Magnetic azimuth N. 107°56' West or the sun ought to have bore from "Beginner's" compass supposing there to be no deviation, West by South ½ S. Hoping that you will rectify this slight error, at the same time excusing myself for intruding upon your valuable space.

FRANK HENRICH.

FLOTSAM JETSAM AND LAGAN.

As the result of the opening of the St. Clair tunnel, the Grand Trunk Railway is calling for tenders from parties willing to purchase one or both of the Canadian ferry boats Huron and International, now lying at Point Edward, Ont.

The Milwaukee Tug Boat Line has applied to the Treasury Department for permission to change the name of the schooner Helena to Amboy. As the company owns the steamer Helena also, it is thought the request will be readily granted.

F. W. Gilchrist, Alpena, Mich., has recently purchased the tug Arthur D. to add to their already powerful fleet of tugs, the firm are now prepared to efficiently protect the west shore of Lake Huron, in so far as towing, wrecking, lightering and all other branches of salvage work are concerned.

Capt. Moore, late master of the C & P Line steamer Algonquin, had occasion last season during a delayed trip in the fall on account of ice, to test the fueling properties of wheat; Capt. Moore informs us that after measuring out a certain number of bushels from his cargo, so as to keep an accurate account of what was consumed, he saturated the bulk with petroleum and received most gratifying results in keeping up steam.

Patents of interest to the shipping world and essentially for marine uses and construction, are not occupying the attention of the inventive genius of this country to any alarming extent at this time. It is not so however on the other side of "the pond" where we find no less than 77 applications for patents on all conceivable portions of mechanism entering into the construction and equipment of a vessel, both sail and steam.

Most persons would say that the diameter of the largest steamer funnel is four to six feet, and would want to wager that it is not more than eight feet. How far from the actual size such guesses are, may be understood when it is stated that the funnel of the Cunard Atlantic Liner Etruria measures a little over eighteen feet in diameter. At even a short distance away, this can hardly be believed. It gives an idea of the enormous size of the big steamers. This can be more readily understood, if the height, and diameter of the crown of a stove-pipe hat be measured.

A CORRECTION.

TORONTO, ONT. February 10, 1892.

To the Editor of The Marine Record.

Please to correct apparent time at ship given in my letter this week to read 4h. 59m. 55sec. W. H. GOODFELLOW.

ASHTABULA, OHIO.

Special to The Marine Record.

The sailboat Dandy has been libelled to satisfy claims amounting to \$70, and will be sold at auction on February 13th.

Steady shipments of ore by the Penn. and Lake Shore R. R. Co's., since the close of navigation, indicate that the docks on both sides of the river will be well cleared by spring. There is harmony between the companies and their employees, and a repetition of the labor trouble of a year ago is not expected.

Shipbuilders and machinists are busy repairing vessels which are in winter moorings here. The Devney's are at work upon the Queen of the West, and have laid the keel for Kunkle Brothers' new tug. McKinnon is overhauling boats of the Orient Line; and Laird, who has completed repairs on the fueling scow, will soon begin work on a new fishing tug.

A life-saving station at this port will cost \$7,000, and Supt. Kimball thinks we will not get it this season. The annual appropriation for the establishment of new stations is only \$50,000, and \$35,000 of this year's appropriation has already been expended. Stations which were ordered built as far back as 1882 have not been touched yet.

TORONTO, ONT.

Special to the Marine Record.

The many friends of Capt. Sinclair, of the steamer Passport, will be pleased to hear that he is once more able to be out after his severe attack of illness.

The schooner Sir C. T. Van Straubenzie that was seized in the early part of the winter has been sold by order of the Maritime Court. The purchaser was Capt. John Williams and price \$3,960.

Capt. A. H. Crawford late of the steamer Rupert has been appointed to the command of the steamer Macassa of the Hamilton and Toronto Steamboat Co. The RECORD man congratulates him on his appointment and hopes that he will have a very successful season in his new command.

There is a good deal of talk here over the proposals to assimilate the United States canal systems with those of the Dominion so as to afford a quick ocean waterway to grain and other freight from the lake cities. This has revived the movement for the Huron and Ontario ship railway and its promoters, John Brown and David Blain, are jubilant at the possible realization of their long cherished plans. If both countries sanction the project an immense amount of capital will be ready to carry out the work. The Toronto Board of Trade will consider the matter at an early date.

There passed away last week at St. Catharines a very old resident of this city and one of the most prominent and experienced lake captains of Ontario. Capt. William Donaldson was born in Utica, N. Y. on September 2nd, 1814. At the early age of four he came with his father to Kingston, Ont. He was educated at that city and was a schoolmate of

the late Sir John A. Macdonald. After leaving school he served a five years apprenticeship in the office of *The British Whig*. As his brothers were all lake captains he left the printers case for a life on the lakes. His first command was the schooner Hannah Counter and in a few years he devoted himself entirely to steamboats. He owned and sailed the steamer Mazeppa, she being the first steamer to ply between Toronto and St. Catharines, this was before the Great Western Railway was extended from Hamilton to Toronto. He was very fond of comparing the early difficulties, especially of winter navigation between the two cities at that period and the present easy and rapid communication. During his long career he commanded a number of passenger steamers plying between Toronto, Hamilton, St. Catharines and Lewiston, among them being the Welland, Blue Bonnet, Silver Spray, City of Toronto, Southern Belle and the Rothsay. Capt. Donaldson also for about ten years carried on a shipyard at Point Dalhousie. The captain was well and favorably known as a sterling, upright man, a kind father and a good citizen. His death occurred at St. Catharines after a long and trying illness. He left a family of four sons and three daughters. The funeral took place last Tuesday from the Union Station to Mount Pleasant cemetery in this city.

The annual meeting of the Canadian Marine Association was held at the Walker House in this city on the 3rd inst. Capt. Crangle, president, in the chair. The president in delivering his address, gave a very interesting account of the year's work and of his visits to Ottawa on business connected with marine matters. Capt. Gaskin offered a resolution thanking the Government for their policy in the past year, especially for the rebate on canal tolls on grain cargoes for Montreal, considerable discussion ensued on the question of the tolls; especial stress was laid upon the demand of the United States shippers and vessel-owners for the rebate on grain when the transshipment took place at an American port. The demand was considered unreasonable, on the ground that Americans do not allow Canadian bottoms to use the New York canals under any circumstances and that in the face of that fact it was thought the Dominion Government could not consistently allow the rebate. The following resolution was moved by Mr. R. O. Mackay, seconded by Mr. J. T. Mathews and carried unanimously. "That the C. M. A. desire to express their sincere regret at the loss the country has sustained in the death of the Rt. Hon. Sir John Macdonald." The resolution referred in warm terms to the assistance the Association had received from the late Premier and regretted that he had not lived to witness the construction of a deep water channel from Lake Superior to the sea. A resolution was also passed directing the Secretary to write to the Marine Department regarding the proposed orders directing the adjustment of compasses before a certificate would be granted, inquiring if such directions had been issued and, if they had been, asking that the Executive Committee be directed to take steps to have such orders cancelled. Mr. Sullivan, the Mayor of Valleyfield, was present to urge on the Association the importance of representing to the Government the impracticability of the proposed Soulanges Canal, that a grave mistake would be made in abandoning the Beauharnois Canal, but after a great deal of discussion on the matter those present came to the conclusion that the Government were quite right in their selection of a new position for the canal. As it has been reported to the Association that nearly all of the owners of tugs in the Welland Canal had formed a combine and would not tow any vessel patronizing any tug not a member of the Association, a resolution was adopted at the request of Capt. Gaskin asking the Government to issue a license to all tugs who shall make application for the privilege of towing in the canal and that they be compelled to take in tow any vessel requiring their service while in commission, at the prevailing rates. The following officers were elected for the coming year: President, Capt. S. Crangle; first vice-president, Mr. J. T. Mathews; second vice-president, Capt. S. Sylvester; secretary, Mr. W. A. Geddes.

SPARTA.

THE chief engineer of the steamer Monmouth, writing to the Forrest Silver Bronze Packing Co., 115 Liberty street, New York city, says, "In reply to yours requesting me to inform you how your Silver Bronze Packing has been working in the engine of the Sandy Hook steamer, 'Monmouth'. I take pleasure in stating that, notwithstanding the severe test to which it has been subjected, it has done the work perfectly, without using any fibrous packing whatever. Before applying the Silver Bronze Packing, we were using the latest and most approved metallic packing, put in by the builders, Messrs. Cramp & Sons, but although this packing was supplemented with soft packing, which was removed almost daily, we were unable to stand on the working platform or feel of the journals below, without being scalded with steam or water. Since you put in the 'Silver Bronze Packing,' two years ago, we have had no trouble and the boxes have been steam and water tight. I was favorably impressed with your packing when I first saw it, but it has exceeded in excellence my most sanguine expectations. In my opinion, it is not only the best, but the most economical packing, for high steam and piston velocity, in the world, and I shall be pleased at any time to afford anyone interested, an opportunity to examine my rods and packing for themselves. The Monmouth has two triple expansion engines, carries a steam pressure of 160 pounds and makes 160 revolutions per minute. The pistons are carried by main and tail rods and owing to the constructional freedom at the cross-heads, are very hard on packing."

Notes.

A CABLEGRAM states that the French Government is about to ask the Chamber of Deputies for an appropriation of 3,500,000 francs (\$700,000) for the French exhibit at Chicago.

A RECENT issue of the *American Shipbuilder* contained a good picture, with short biographical sketch, of W. I. Babcock, son of the late Capt. David S. Babcock. Mr. Babcock is now in charge of the iron and steel plant of the Chicago Shipbuilding Works.

THE Roberts Safety Water Tube Boiler Co. have just received an order from the Detroit Boat Works for a 7 by 8 boiler, having 35 square feet of grate surface. Presumably, this order has been received on account of the satisfactory results achieved by the duplicate boiler, for the last two years, in Congressman McMillan's steam yacht Idler.

WE are in receipt of a yacht list from The Roberts Safety Water Tube Boiler Co. giving a detailed account of measurement, description and speed of nearly 100 steam vessels containing their Safety Water Tube Boilers. The list, we understand, is sent free to anyone sending their address to the company at 16, 18 & 20 Cortlandt street, New York.

JOHN WILEY & SONS, scientific publishers, 53 E. 10th street New York, announce that they have decided to make the price of Ibseng's Manual of Mining, \$4 instead of \$4.50 as mentioned in a recent issue of THE MARINE RECORD. Those of our readers who are interested in the extensive mining interests of the Northwest, should procure a copy of this modern work on mining.

H. G. TROUT, of Buffalo, N. Y., manufacturer of the world renowned Trout wheel, has issued a handsome folder and descriptive circular containing a few of the many testimonials received concerning his wheel. The following is a fair sample:

Cincinnati, O., H. G. Trout, Buffalo, N. Y. Dear Sir: The wheel you furnished our steamer, the Silver Star, has averaged 165 revolutions per minute; increase of speed about two miles per hour; the boilers carry about 85 pounds of steam. Yours truly (signed), A. J. Cook, Master.

M. E. B. A. No. 2 has just issued a manual and directory of its membership, containing 112 pages. Besides the names and addresses of all members, many instructive rules and educational articles on the use of steam and its appliances are printed in the issue. The manual is illustrative of the energy and vim found in the modern class of marine engineers, and reflects great credit on the members of No. 1. We note that Egbert P. Watson, of New York, contributes his undisputed quota of technical articles to the pages of the manual.

Insurance Company of North America.

INCORPORATED 1794.

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MARINE AND INLAND INSURANCE.

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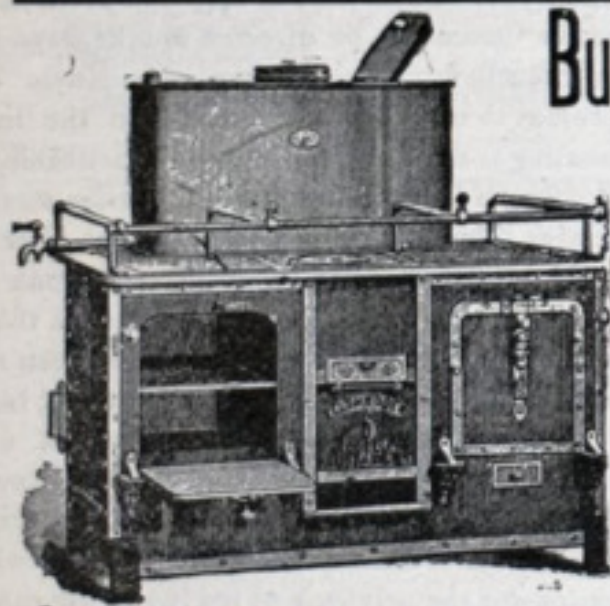
Office, 51 Wall Street, NEW YORK.

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Assets over \$10,000,000.00, for the Security of its Policies.

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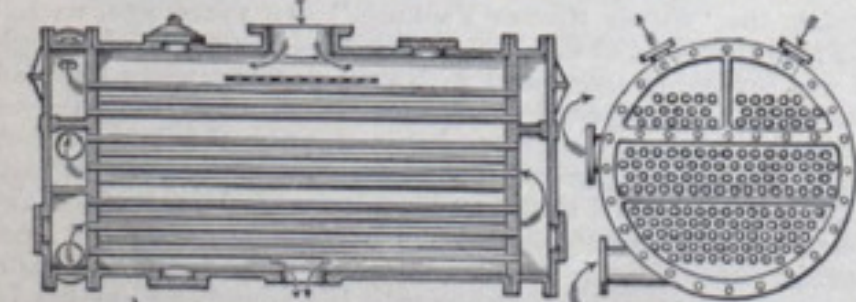
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D. WHITNEY, JR. PRESIDENT.

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This Company will transact a Hull and Cargo business on the Lakes during the season of 1892.

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AGGREGATE CAPITAL OVER \$6,500,000.

The above Companies will do a General Hull and Cargo Business on the Great Lakes.

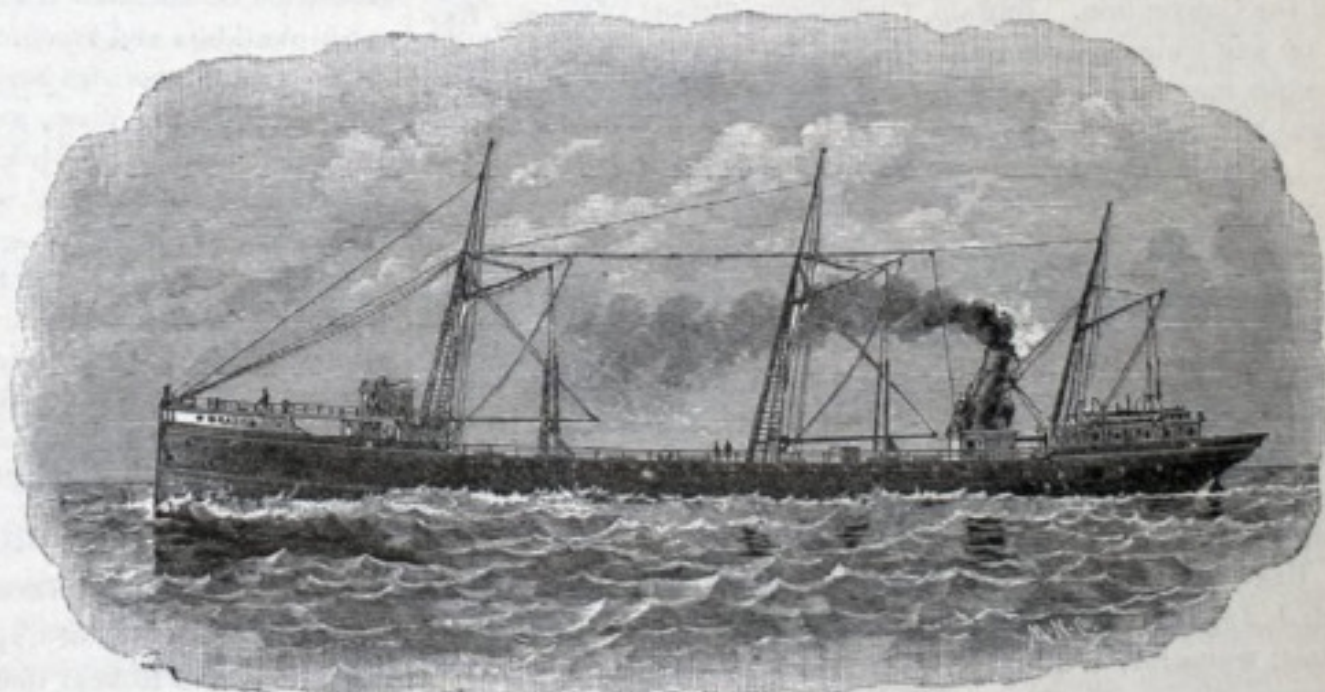
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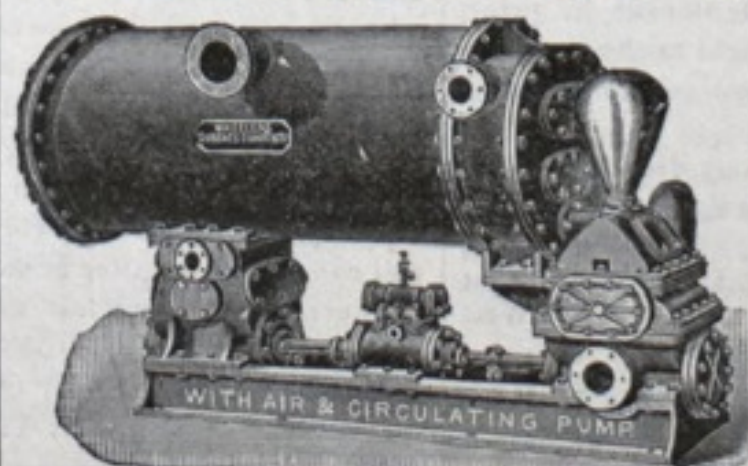
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